REMARKS

Claims 1-5, 7, 8, 10-17 and 19-29 are currently pending, wherein claims 5, 7, 8, 10, 17 and 19 have been amended to include the subject matter of canceled claims 6, 9 and 18 and to correct any dependencies resulting therefrom. Favorable reconsideration is respectfully requested in view of the above-identified amendments and the remarks presented herein below.

In paragraph 2, the Office rejects claims 1-10, 20 and 21 under 35 U.S.C. §102(b) as being anticipated by the Chang et al. paper titled "Animation: From Cartoon to the User Interface" ("Chang"). Claims 6 and 9 have been canceled, rendering this rejection moot with regard thereto. However, Applicant respectfully traverses this rejection with regard to claims 1-5, 7, 8, 10, 20 and 21.

It is well known that in order to support a rejection under 35 U.S.C. §102, each and every claimed element must be disclosed by the cited reference. In the present case, independent claim 1 is not anticipated by Chang for at least the reason that Chang fails to disclose each and every claimed element.

Independent claim 1 defines a method for moving an object in a graphical user interface. The method includes, *inter alia*, the steps of determining a path of movement for the object along at least one axis, and a period of time for the movement along said path; establishing a non-constant velocity function along said axis for said period of time; calculating an instantaneous position for the object along said path in accordance with said function and the relationship of a current time value to said period of time; and displaying said object at said calculated position.

Chang discloses a user interface that employs cartoon animation principles in rendering/displaying interface objects. For example, to give a feeling of weight to objects and physicality to their movement, Chang employs a technique referred to as slow in and slow out rather than drawing objects equally spaced in space and time. Accordingly, objects move out of a position slowly, then quickly during the bulk of the movement, and then slowly into the ending position. (See page 50 and FIG. 8 and 9 of Chang). However, Chang fails to disclose that this slow in, slow out process comprises the steps of

determining a period of time for the movement along a path; establishing a non-constant velocity function along at least one axis for said period of time; and calculating an instantaneous position for the object along said path in accordance with said function and the relationship of a current time value to said period to time.

The Office Action asserts that Chang discloses these steps inasmuch as Chang discloses displaying an object at various positions between a starting position and an ending position wherein the distances between the positions are closer at the beginning and end than during the middle of the transition. To support this position, the Office Action points to FIGs. 8 and 9 and the concept of slow in and slow out discussed on page 51 of Chang. This assertion is unfounded for the following reason.

The cited passage (i.e., page 51 of Chang) discloses that the movement of an object is not composed of drawings that are equally spaced in space and time. This is also illustrated in FIG 8 wherein the distance between the respective object positions is closer at the beginning and end of the representation and greater in the middle. However, nowhere in Chang is there any disclosure as to *how* the varying distance between the respective object positions is determined. Accordingly, Chang cannot possibly be interpreted as disclosing the specific steps of determining a period of time for the movement along a path, establishing a non-constant velocity function along an axis for said period of time, and calculating an instantaneous position for the object along the path in accordance with the function and the relationship of a current time value to the period of time as claimed. Nowhere does Chang disclose the concept of using periods of time or current values of time as factors in determining the movement of an object.

Furthermore, these steps are not inherent to the disclosure of Chang for at least the reason that the varying positions of Chang may be achieved by various techniques/calculations based on distance alone. For example, the number of and distance between each object display may be based on the total distance to be traveled. Therefore, the velocity function and time calculation of the present invention do not *necessarily* flow from the teachings of Chang. As pointed out in the specification, one of the advantages achieved by the present invention is the fact that the movement of an object is independent

of the speed of the processor. There is nothing Chang discloses how to achieve such consistency across disparate computing platforms. Accordingly, Chang fails to anticipate claim 1.

Independent claim 5, as amended, defines a method of moving an object in a graphical user interface that includes, *inter alia*, displaying the object at sequential positions along a path from a starting location to a final location at increments of time, such that the distance between successive positions varies in accordance with a non-linear function so that the object appears to be moving at a changing velocity. Independent claim 5 is patentably distinguishable over Chang for at least the reason that Chang fails to disclose a method that include the step of displaying the object at sequential positions along a path from a starting location to a final location at increments of time, such that the distance between successive position varies in accordance with a non-linear function as claimed.

Independent claim 8, as amended, defines a user interface which includes means for carrying out the method of claim 5. Therefore, claim 8 is patentably distinguishable over Chang for at least those reasons present above with respect to claim 5.

Independent claim 20 defines a user interface for a computer. The user interface includes, *inter alia*, a display space within which an object is displayed at a first location; and means responsive to a user action for selecting a second location to which said object is to be moved and a period of time during which the movement is to occur, and for moving said object from the first location to said second location at a non-linear rate of movement during said period of time. The user interface of claim 20 is not anticipated by Chang for at least the reason that Chang fails to disclose a user interface that includes means for selecting a period of time during which movement of the object is to occur and moving the object at a non-linear rate of movement during said period of time (See discussion above).

Claims 2-4, 6, 7, 9, 10 and 21 variously depend from independent claims 1, 5, 8 and 20. Therefore, claims 2-4, 6, 7, 9, 10 and 21 are patentably distinguishable over Chang for at least those reasons presented above with respect to claims 1, 5, 8 and 20.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-10, 20 and 21 under 35 U.S.C. §102.

In paragraph 4, the Office Action rejects claims 14-19 and 25-26 under 35 U.S.C. §103(a) as being unpatentable over Chang. Applicant respectfully traverses this rejection.

Independent claims 14 and 17 define a computer-readable medium containing a program which executes the steps of method claims 1 and 5, respectively. Accordingly, claims 14 and 17 are patentably distinguishable over Chang for at least those reasons presented above with respect to claims 1 and 5.

Independent claim 25 defines a computer system having an operating system that includes a user interface as defined by independent claim 20. Therefore claim 25 is patentably distinguishable over Chang for at least those reasons presented above with respect to claim 20.

Claims 15, 16, 18, 19 and 26 variously depend from independent claims 14, 17 and 25. Therefore, claims 5, 16, 18, 19 and 26 are patentably distinguishable over Chang for at least those reasons presented above with respect to claims 14, 17 and 25. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 14-19, 25 and 26 under 35 U.S.C. §103(a).

In paragraph 5, the Office Action rejects claims 11, 22 and 27 under 35 U.S.C. §103(a) as being unpatentable over Chang in view of the IBM TDB article titled "Window Closing Animations" ("IBM article"). Applicant respectfully traverses this rejection.

Claims 11, 22 and 27 depend from independent claims 8, 20 and 25, respectively. Therefore, claims 11, 22 and 27 are patentably distinguishable over Chang for at least those reasons presented above with respect to claims 8, 20 and 25.

The IBM article discloses that various animations, such as shattering like a pane of glass, or melting as if exposed to intense heat, can be employed to provide window closing feedback in a user interface. However, the IBM article fails to overcome the deficiencies of Chang. Since both Chang and the IBM article fail to disclose or suggest a user interface that includes means for displaying the object at different sequential positions during respective increments of time, such that the distance between successive positions varies in

accordance with a non-linear function as recited in claim 8, or means for selecting a period of time for moving the object and for moving the object at a non-linear rate of movement during the period of time as recited in claims 20 and 25, the combination of these two documents cannot possibly disclose or suggest said features. Therefore, even if one skilled in the art were motivated to combine Chang and the IBM article as suggested by the Office Action, the combination would still fail to render claims 8, 20 and 25, from which claims 11, 22 and 27 depend, unpatentable. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 11, 22 and 27 under 35 U.S.C. §103(a).

In paragraph 6, the Office Action rejects claims 12, 13, 23, 24, 28 and 29 under 35 U.S.C. §103(a) as being unpatentable over Chang in view of U.S. Patent No. 5,796,102 to Ellison-Taylor ("Ellison-Taylor"). Applicant respectfully traverses this rejection.

Claims 12, 13, 23, 24, 28 and 29 variously depend from independent claims 8, 20 and 25. Therefore, claims 12, 13, 23, 24, 28 and 29 are patentably distinguishable over Chang for at least those reasons presented above with respect to claims 8, 20 and 25.

Ellison-Taylor discloses a method of automatically aligning windows on a computer screen. However, Ellison-Taylor fails to overcome the deficiencies of Chang. Since both Chang and Ellison-Taylor fail to disclose or suggest a user interface that includes means for displaying the object at different sequential positions during respective increments of time, such that the distance between successive positions varies in accordance with a non-linear function as recited in claim 8, or means for selecting a period of time for moving the object and for moving the object at a non-linear rate of movement during the period of time as recited in claims 20 and 25, the combination of these two documents cannot possibly disclose or suggest said features. Therefore, even if one skilled in the art were motivated to combine Chang and Ellison-Taylor as suggested by the Office Action, the combination would still fail to render claims 8, 20 and 25, from which claims 12, 13, 23, 24, 28 and 29 depend, unpatentable. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 12, 13, 23, 24, 28 and 29 under 35 U.S.C. §103(a).

This application is in condition for allowance. Notice of same is earnestly solicited. Should the Examiner have any questions, the Examiner is invited to call the undersigned at the telephone number provided below.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

By: Penny L. Caudle
Penny L. Caudle
Registration No. 46,607

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620

Date: February 20, 2002

ATTACHMENT A

5. A method for moving an object in a graphical user interface, comprising the steps of:

identifying a starting location for the object;

selecting a final location for the object;

displaying said object at sequential positions along a said path from said starting location to said final location at increments of time, such that the distance between successive positions varies in accordance with a non-linear function so that the object appears to be moving at a changing velocity.

6. Cancel

7. The method of claim [6] 5 wherein said function is a sinusoidal function, so that the object appears to accelerate and then decelerate along said path.

8. A user interface for a computer, comprising:

a display space within which objects are displayed; and

means responsive to a user action for moving an object displayed in said space from a first location to a second location by displaying the object at different sequential positions during respective increments of time, such that the distance between successive positions varies in accordance with a non-linear function so that the object appears to be moving at a changing velocity.

9. Cancel

10. The user interface of claim 8 [9] wherein said function is a sinusoidal function, so that the object appears to accelerate and then decelerate along a path from said first location to said second location.

17. A computer-readable medium containing a program which executes the following steps:

displaying at least one object at a first location in a display space;

selecting a second location for the object within said display space, and a period of time within which the object is to move from the first location to the second location;

displaying said object at sequential positions along a path from said first location to said second location at increments of time within said period, such that the distance between successive positions varies in accordance with a non-linear function so that the object appears to be moving at a changing velocity along said path.

18. Cancel

19. The method of claim 17 [18] wherein said function is a sinusoidal function, so that the object appears to accelerate and then decelerate along said path.